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Abstract

This paper is concerned with identifying ways of facilitating ‘meaningful disagreement’ amongst students in interprofessional online discussion forums. It builds on previous research that identified a trend towards polite agreement and only limited evidence of disagreement in this setting. Given the suggestion that disagreement indicates a deeper level of engagement in group discussion and therefore leads to deeper learning, our aim was to critique the pedagogical approach adopted by analysing whether we were promoting a particular interprofessional discourse amongst students that favoured agreement and therefore limited potential learning. Agreement in this context has been conceptualised as a form of online interprofessional ‘netiquette’ existing amongst participants. Findings suggest that creating an online context for critical discourse is challenging; however, the careful construction of learning outcomes, trigger material/resources and learning activities, as well as attention to students’ stage of study and life experience, can provoke the desired effects.

Keywords

Critical discourse, Disagreement, Online discussion, Interprofessional learning.

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Introduction

The use of technology to deliver interprofessional learning (IPL) online has increased in popularity due to its proven benefits (Clouder 2008; Bluteau & Jackson 2009).

Amongst these benefits is the opportunity to meet peers online to test out ideas, refine attitudes, beliefs and values and to get used to professional language and mores without fear of causing offence, experiencing embarrassment or feeling exposed in the same way as must be risked in face-to-face interaction. Gunawardena, Lowe & Anderson (1997) identify substantial opportunities for generating depth of learning online through the promotion of dialogue. However, encouraging students to share their ideas and to engage with one another at more than a superficial level typical of a social networking site is something of a challenge.

Research focusing on analysing online discussion forums as part of an interprofessional learning pathway (IPLP), on which this paper builds, discovered a strong norm - or 'netiquette' - towards agreement in online discussions that seemed to fail to optimise interprofessional learning (Clouder, Goodman, Bluteau, Jackson, Davies & Merriman, 2011). These findings reinforce previous research that has shown that as with face-to-face communication (Kuo 1994), there is a strong norm towards agreement in online settings (Baym 1996, Guiller & Durndell 2006). Online discussions in general are characterised by politeness and reluctance to criticise one another's ideas (Nussbaum, Hartley, Sinatra, Reynolds & Bendixon, 2004); in the unusual cases where disagreements occur they are always presented in a delicate manner (Chen & Chiu 2008). In fact, a substantial body of evidence suggests that

online interaction between students is largely non-argumentative in nature (for example, Veerman, Andriessen & Kanselaar 2000; Marttunen & Laurinen 2002; Rovai & Barnum 2003). However, there is some evidence that higher order thinking and critical discourse can be found in online discussions (Rourke & Kanuka 2007; Jeong & Lee 2008; McLoughlin & Mynard 2009).

The argument for a critical discourse of IPL

A critical discourse of IPL has the potential to cleave at existing ritualized ways of working and professional boundaries (White & Featherstone 2005), shake interprofessional stereotypes (Barnes, Carpenter & Dickinson 2000) and promote effective communication to enhance collaboration (Henneman, Lee & Cohen 1995). However, such benefits cannot be achieved when professionals lack the ability to debate, contest and deliberate openly with colleagues. While agreement may, at first glance, seem to be positive in an interprofessional setting, debates that are uncritical are unlikely to promote learning or enhance practice. Research suggests that 'critical discourse', the process of creating argument and counterargument, and reaching new and shared conclusions, is a necessary tool to facilitate learning (Rourke & Kanuka 2007). Our initial findings indicated a need to identify ways of nurturing a 'critical discourse' of IPL characterised by debates free of the constraints of the rule of agreement and rather richer in counterargument. We reasoned that in depth learning is most likely to occur where disagreement is permitted and produced in a respectful way; what we refer to as 'meaningful disagreement'. Adopting Garrison, Anderson and Archer's (2000, p15) argument that critical discourse occurs 'where dissonance and problems are resolved through explorations, integration and testing', we considered the development of meaningful disagreement to be inherent to establishing

an online critical discourse of interprofessional learning. The Community of Inquiry (COI) model developed by Garrison *et al.* (2000), which has had significant impact on understandings of online learning, suggests that three interdependent elements are necessary for effective learning to occur: social, teaching and cognitive presence. Briefly, social presence recognises that learners need to be able ‘to project themselves socially and emotionally, as ‘real’ people’ (Garrison *et al.* 2000, p 94). Teaching presence is expressed through ‘the design, facilitation and direction of cognitive and social processes’ (ibid, p5). Finally, cognitive presence refers to establishing ‘an environment that enables learners to construct and confirm meaning through sustained reflection and discourse’ (ibid, p11). Cognitive presence has four phases: a triggering event, exploration, integration and construction of meaning, and resolution or application of new knowledge. We acknowledged a need to find ways of encouraging students to be a little more daring and moved to defend a viewpoint rather than simply agreeing with the dominant discourse thereby progressing through an exploratory phase to achieve integration and collaborative knowledge construction and possibly even application. Although meaningful disagreement may be only part of an exploratory phase of learning, and only part of higher order learning, we maintained a belief in its importance for developing interprofessional collaborative discourse as well as for individual students making meaning of knowledge within a social context (Vygotsky 1978).

The explicit curriculum in context

As Gibson (2009, p. 709) advocates, our intent was to explore ‘the enactment of pedagogy’ and to scrutinise our findings within the framework of our approach. Therefore, our aim was to critique the pedagogical approach adopted by analysing the

resultant interprofessional discourse that it produced; specifically we wished to identify alignment of materials, activities and other factors that provoked disagreement. Rourke and Kanuka (2007) highlight the positive impact of highly structured discussion activities on critical discourse, particularly when the activities explicitly required students to be contentious. Gilbert and Dabbagh's (2005) research on the impact of structure on asynchronous online discussions suggest that guidelines, rubrics and posting protocols are influential in promoting meaningful discourse. Their identification of need for further research to determine to what extent meaningful discourse was promoted by other structural factors, such as discussion questions or topics, highlighted the potential significance of the findings of this study in this complex area.

We were also aware of a wealth of less explicit instrumental factors beyond our control, which can influence students' engagement; for instance, prior experience in the workplace and educational background (Pollard, Miers & Gilchrist, 2004). Furthermore, we acknowledged certain discourses integral to the students' programmes that work their influence through the hidden curriculum. For instance, exposure to an IPL curriculum in itself indicates it to be perceived as an inherently 'good thing' therefore should be actively embraced. The practice of setting ground rules for interaction, whilst not confined to interprofessional groups, again sends implicit messages about how and how not to interact. These discourses are influential in shaping students as professionals as they learn to position themselves in relation to them and therefore demanded reflexivity on behalf of the research team.

Notwithstanding other potential influences we sought to identify the effect of intended learning outcomes, structured learning activities and the scenarios or ‘trigger’ resources used as a focal point to generate discussion, similar to ‘trigger events’ identified by Garrison *et al.* (2000). Specifically, we aimed to identify particular circumstances that appeared to give rise to the less common disagreement that we saw as valuable, with the intention of replicating the conditions more widely.

Learning outcomes serve as a benchmark against which teaching, learning and assessment can be constructively aligned. Whether specific or broader in nature they provide students with some indication of what to expect from a course or module even if they cannot predict the full extent of the unintended outcomes. Hussey and Smith (2002) are sceptical of the usefulness of precise learning outcomes suggesting that academics are concerned to a greater extent with course design and delivery. In terms of online instructional strategies, research by Richardson and Ice (2010) found that although the majority of students preferred open-ended discussions to debate or case-based discussion, none of the approaches were superior in terms of promoting critical dialogue. However, they suggest that asking the right questions is a key factor in promoting a good discussion. Similar emphasis is put on question posing by Kanuka and Garrison (2004) who suggest that this is crucial if students are to progress from simply comparing and contrasting information to knowledge construction.

McLoughlin and Mynard (2009) highlight the importance of the initial prompt, which guides students down certain avenues when posting responses, in ensuring that all students can contribute to the discussion regardless of how it subsequently unfolds.

Question posing is achieved through what Salmon (2003, p.3) refers to as ‘e-tivities’ or activities for ‘enhancing active and participative online learning’’. She suggests that e-tivities need to be carefully constructed around sound pedagogical principles and relate to authentic tasks and situations to engage learners. However, she also highlights the need for a ‘stimulus’ or what we refer to as a ‘trigger’ to spark discussion. The trigger, whether this is a scenario, an image or other e-resource, provides a context for the interaction, which again needs to be authentic to real situations and experiences (Wenger, McDermott & Snyder, 2002). These research findings suggest that the nature and wording of the questions, as well as their timing, and the quality of the trigger can all potentially influence the quality of critical discourse.

Research Context

The educational approach adopted in the IPLP is socio-cultural and constructivist in nature (Conole, Dyke, Oliver & Searle, 2004) in that it is both socially situated and aims to enhance each individual’s sense of themselves as student professionals. The learning outcomes are distilled from the widely accepted definition of interprofessional learning that encourages students ‘to learn with, from and about each other to improve collaboration and quality of care’ (CAIPE, 1997, p.19). These outcomes are contextualized, in this case in a Year 1 module, which addresses current inequalities in health and social care and encourages students to draw on both personal experience and their initial perceptions of their own professions. They are:

1. Discuss the role of health and social care professionals and their employing agencies in perpetuating and counteracting discrimination and inequality.

2. Increase understanding of the roles of a variety of professionals and encourage the development of the capacity to discuss issues of social and health care.

These learning outcomes are refined into a series of online e-tivities, which relate to a purpose built learning object known as 'The Street'. 'The Street' houses a community, which includes four families fashioned into discreet authentic stories, each concentrating on an area of health and social inequality, which illustrate a range of issues commonly encountered by health and social care professionals. The creative ideas and visual images were developed using software such as Sketchup, Poser and Photoshop, to shape content and images into a coherent set of visual 'comic strip' stories before making them interactive in a Flash environment. The IPLP runs over a four-week period. Each week students complete a series of e-tivities based on occurrences in 'the Street', which they discuss asynchronously online within a small interprofessional group (n=15), each having its own discussion space and a trained e-facilitator or 'e-moderator'.

Space precludes an attempt to do justice to an analysis of the role of e-facilitators in promoting critical dialogue in the context of the current discussion. Salmon (2000, p.4) describes this role as promoting human interaction and communication through the modelling, conveying and building of knowledge and skills'. The teaching presence element of the COI model (Garrison *et al.* 2000) highlights the facilitator's role in clarifying, encouraging, instructing, constructing and deconstructing ideas, correcting incorrect assumptions and highlighting the metacognitive processes occurring in online groups. We certainly acknowledge that all of these processes were occurring in the IPL forums and that facilitators have a role to play in promoting

critical discourse, which we aim to explore further. However, here we have focused attention on the equally important design and organization aspect of teaching presence by exploring the influence of learning outcomes, activities and trigger resources for the benefit of colleagues in the IPE field, nationally and internationally, wishing to develop similar interventions.

The online groups each develop their own unique set of ground rules based around professional expectations regarding attitudes and behaviours to be observed whilst working in collaboration with colleagues. Following a short socialisation process students engage with e-tivities which provoke ‘guided’ discussion, initially shaped by questions posed. The online groups provide a safe forum for debate and critical dialogue, which is crucial for establishing social presence (Garrison *et al.* 2000). Students from fourteen health and social care professions are involved (Table 1).

Insert Table 1 here

Methodology

The study adopted a discursive approach (e.g. Edwards & Potter, 1992) focusing on the action orientation of talk. Discourse analysis is a type of qualitative analysis of coherent speech (text) in a specific social context in which individuals use language to construct versions of a social world. It explores ‘language in use’ as ‘new meanings are created through the to and fro and the combined contributions’ (Wetherell, Taylor & Yates, 2001, p. 6). Rather than focusing on students' own thoughts or beliefs *per se*, we were concerned with what was said and what the interaction accomplished. The

text itself is the data, which is subject to analysis within its social, psychological, institutional, socio-political and historical contexts. The data here comprised all text generated (approximately 490 postings of varied length), across 14 e-tivities, from one of 74 Year 1 online discussion forums occurring in November 2010. This group was selected at random by an independent colleague. The average number of postings per e-tivity was 35. They were downloaded, indexed and anonymized by replacing student names with a number and labelling by professional group.

Ethical approval for the project was obtained from Coventry University Research Ethics Committee. Students received prior notification that the research would be carried out and could opt out of having their online postings used; only one student did so. A first level of analysis involved scrutinising the discussion threads for each e-tivity against the module learning outcomes to check for alignment, prior to looking at students' responses to find whether the learning outcome had been achieved. Our previous work had sensitized us to the categories into which data would fall; agreement, disagreement, agreement/disagreement and neutral comments. Posts were coded using a simple qualitative analysis approach, colouring text according to its content. Manifest items, or specific words present in the text (Robson 2002), such as 'I disagree' were clearly easily identified, whereas reading for underlying and more implicit meaning required repeated reading and cross checking across the team; Each of the individual researchers coded transcripts independently prior to making comparisons for inference and interpretation to reach consensus on what was being achieved in the discussion.

Findings

The research team examined the text across fourteen e-tivities for the chosen group. and concluded that they all responded to either the whole or a part of a learning outcome (Table 1) reassuring us that the students maintained focus in the relatively loosely controlled online setting and supporting the claim that the learning outcomes and e-tivities were constructively aligned. When the student responses were analysed for elements of disagreement, five e-tivities were found to trigger ‘good’ levels of disagreement, defined as sustained debate over several posts. These are shown in Table 2.

Insert table 2 here

As expected a greater number of posts erred on the side of agreement or were mixed with both elements of agreement and disagreement, for example, “ *I hate to say it but I disagree with your point about the Social Worker...*

These type of posts could be said to typify the delicacy with which disagreement is broached (Chen & Chiu 2008). . The e-tivity 4.2, which prompted the most disagreement (Table 34), was selected for further analysis of predisposing factors.

Insert Table 3.: E-tivity associated with disagreement

In this e-tivity students are asked specifically what they would do as a health or social care professional in response to a situation in a rather bland way that does not appear to overtly invite, nor inhibit, disagreement. Amanda, the central character in the

scenario, has complained that she cannot get an appointment with her GP because there are so many immigrants, prompting the following dispute between three students:

If [Amanda] was to pose this question to me as a Doctor, I would tell her that I treat my patients equally, regardless of ethnicity or country of origin. Amanda herself is un-employed as is her husband and two sons therefore they are receiving benefits but not putting anything back into the system ... we don't know the reasons behind their un-employment but in my opinion they are in just the same boat as people who have only just immigrated from another country. I would also recommend that Amanda needs counselling and parenting classes because of her inability to cope and high stress levels I feel could be a contributing factor for her ignorance and weakness as a parental role model [Social work student 1]

I think if she needed parental classes it would be too late anyway as her children are mostly above the age where they are impressionable. However I would like to know where you get the information in the scenario to assume that she is a weak parental role model? From what I saw I didn't have enough information to make such a rash decision [Learning disabilities nurse 1].

First of all I don't agree with you that it is too late ... because she needs educating on the basics ... Amanda and her family need support from somewhere and I think educati[on] would be a good starting point which may benefit all the family [Social work student 1]

I admire your determination to educate Amanda. I do have a question, with the limited resources placed on the NHS do you think Amanda qualifies for counselling and parenting classes? [Medical student].

You raise a really good point regarding limited resources within the NHS... I readily admit I am not entirely sure about criteria, resources etc [Social work student 1].

I think we are being too quick to judge the situation when not enough information has presented itself. We are going to be health professionals and we can't just jump to conclusions about people without all the facts! Also it may not be too late but her children are all above the age of 14 and I know that when I was 14 my parents, although I respected them and had their good values from childhood rearing, they weren't the most impressionable people in my life [Learning disabilities nurse 1].

I agree we may be being hasty and judging the situation. I agree also yes we are going to be health professionals and should not make assumptions, but we will be given limited information in the hospital setting without knowing all the facts just like the scenarios and it is our job to try and determine the best help and support if we possibly can. It may actually be too late for help for Amanda but it doesn't hurt to try, because if she could be educated ... she may be able to make some sort of impact on her children and support them to get jobs or go to college and not to repeat the way of life she has found herself and she may gain the strength to improve her own circumstances [Social work student 1].

This conversation provides a small snapshot of the ways in which students explored personal beliefs and lay arguments, which include stereotyping, blaming and problem

attribution, reflecting their status as Year 1 students. Lack of space prevents the inclusion of large quantities of qualitative data and in fact this extract is apt in illustrating the 'to and fro' (Wetherell *et al.*, 2001, p. 6).of conversations that is representative of the findings overall. In exploring what the students are accomplishing in the conversation we see that they appear to begin to consider expectations and actions that might apply to themselves as health professionals, moving from exploring the issues to collaborative knowledge construction and application to the real world. For instance, they deliberate how decisions might have to be made with limited information. Emerging tensions between lay beliefs and what is deemed to be 'professional' are also evident.

The e-tivity that sparked this conversation was very benign and yet critical discourse was achieved suggesting that it is likely that the scenario provided the crucial trigger necessary to stimulate engagement. Associations with existing knowledge, personal experience and perhaps most importantly identification with professional values appear to elicit strong emotions and the confidence to challenge others' perspectives that could be argued is an essential attribute for the new graduate moving into the workplace where there is ever increasing emphasis on collaborative working.

Discussion

We acknowledge that we provide only a brief vignette of the online discourse of disagreement and debate that we prize. However, our analysis is based on exploring interaction that has a 'particular' significance in itself; it exists in one context ... it is not ephemeral' and is highly detailed in describing an 'aspect of a whole' (Wetherell, *et al.* 2001, p. 14).

The vignette illustrates that it is feasible to facilitate a critical discourse of IPL in an online discussion forum even in the students' first year of study. This research has attempted to investigate the influence of e-tivities and trigger resources on students' engagement in critical discourse through the production of 'meaningful disagreement'. As such it provides much needed evidence of how structural factors, in this case specifically scenarios, can promote critical discourse online (Gilbert & Dabbagh 2005). Findings have also reinforced the insights of previous research by showing that the task is not necessarily an easy one. However, they have highlighted factors that do appear to lead to students posing arguments and counterargument, and reaching new and shared conclusions whilst interacting with one another online (Garrison *et al.* 2000; Rourke & Kanuka 2007). The COI model (Garrison *et al.* 2000) has been useful in helping to frame thinking about developing collaborative critical discourse and is a reminder that in focusing on the structural factors we have paid less attention to others, such as facilitator influence, which we plan to consider more closely.

The learning outcomes, which provide the framework for the IPLP learning experience, are worded to indicate a breadth of learning designed to reflect students' first year of study and to take into account limited insight into their chosen profession. Nevertheless, they address professional stances related to inequalities in a professional context and the shared challenge for all health and social care professionals of addressing the issues. The e-tivities encourage students to debate these issues and provide a crucial initial prompt that appear to be open enough to ensure that the majority of students can contribute to the discussion regardless of how

it subsequently unfolds (McLoughlin & Mynard, 2009). Typically, they provide practical instructions about what students are required to do without explicitly asking them to present argument and counterargument. It is therefore not too surprising to find that responses generally appear to link closely to the task, which possibly reflects students' training in answering essay questions as set, for instance. Building on research findings that suggest that critical discourse is heightened when the activities explicitly require students to be contentious (Rourke & Kanuka 2007), we might in future capitalize on students' close attention to the task and be more directive by instructing them to challenge ideas and to be contentious. Similarly, given the support for the importance of question posing in online activities in the literature (Richardson & Ice 2010; Kanuka & Garrison 2004) this is an area that requires review.

Presently the disagreement which occurs seems to be attributable largely to the context in which activities are set or the scenarios which trigger responses. Since findings show disagreement was more evident when personal, rather than professional points of view were advanced, we suggest that creating critical discourse at this level (year 1) can be achieved by drawing on lay knowledge and prior life experience through the use of triggers that tap into everyday life events of many students. At this level of study, 'meaningful' can only be seen in what is personally meaningful according to students' life experiences so far, highlighting the importance of drawing on real situations and experiences (Wenger, McDermott & Snyder, 2002). This finding leads us to consider whether students might be asked to develop some scenarios for future use. Such an approach would enhance the inclusive nature of the Year 1 IPL, allowing everyone to develop a voice online because they can draw on the broader cultural context of their life experience, making meaning of

knowledge and developing professional understandings within a social context (Vygotsky 1978). In the first year of study professional perspectives are not absent but limited yet already students are confronted with situations where personal and professional beliefs and values are contradictory, exposing them to the tensions that are part of professional life. Although some students clearly enjoyed the discussions that occurred and participated wholeheartedly, the findings suggest that prior preparation may benefit some students who have the experience to draw on yet lack confidence to put forward their opinions online. Likewise a review of the existing facilitator training programme could orientate facilitators more precisely to the ultimate aim of promoting critical discourse.

Analysis of the discussion forums has not yet been extended to the discussions that occur later in the programme. Although there is currently no evidence in the literature on which to draw we anticipate that once students have a greater knowledge of their own professions and of health and social care in general, we might expect to identify more professionally informed critical discourse through disagreements that draw increasingly on professional as well as lay arguments.

Finally, the context of the learning experience cannot be ignored. The pedagogical approach of developing interprofessional practice through the online IPLP discussion groups, begins to shape students in a social setting and exposes them to the need to 'act the part' as one of their own profession, as well as positioning themselves as interprofessional practitioners. Given these implicit and explicit influences, any posting which demonstrates such interprofessional examples of good practice can only be agreed with by other students. In addition, health and social care practice is

imbued with the discourse of benevolence and helping, which creates a sense of identity, related to how to carry out one's job well, that is intrinsically related to being a good, caring and virtuous practitioner in the eyes of others (Clouder 2005). The defense of Amanda and the suggestion "*that it might be too late ... but it doesn't hurt to try*" that follows well argued disagreement may be an illustration of students identifying with this discourse. Whether this response might change as students progress through their courses or in face-to-face interaction requires further research.

Conclusion

The creation of argument and counter argument that leads students to reach new and shared conclusions is a challenge, yet one that we suggest is worth pursuing. Our research supports previous research, which suggests that the online setting offers ideal opportunity for generating depth of learning (Gunawardena *et al.*, 1997) and critical discourse (Garrison *et al.* 2000; Rourke & Kanuka, 2007) through collaborative online dialogue. As we have illustrated, the creation of a learning experience through careful construction of learning outcomes, trigger materials/scenarios and learning activities is a complex task that requires close attention to students' stage of study and prior life experience. Encouraging students to engage in interprofessional critical discourse, whether it is online or face-to-face, opens up enormous potential for developing insights that will shape professional careers and the way in which professionals work together. The challenge is in identifying pedagogical approaches that can effectively foster rather than unintentionally stifle it.

Declaration of Interest

The authors report no conflict of interest. The authors alone are responsible for the content and writing of the paper.

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